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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/471,083 | 12/23/1999 | RAJEEV KOODLI | 730.37334X00 | 6982 |

20457 7590 07/21/2004

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EXAMINER

NALVEN, ANDREW L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2134

DATE MAILED: 07/21/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/471,083

Applicant(s)

KOODLI ET AL.

Examiner

Andrew L Nalven

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are pending.
2. Amendment submitted 12 May 2004 has been received and entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 11 found on page 9 have been considered but are moot in view of the new ground(s) of rejection.
4. Applicant has argued on pages 10 and 11 that the Denker (US Patent No. 5,958,053) reference fails to remedy the deficiency of Levesque by failing to teach "the storing of information corresponding to selected information normally included in the payload of the packet in a field in a header of the packet where the field is not subject to encrypting security processing, the selected information including transport level information usable by intermediate nodes between a sending node and a receiving node to provide value added services relative to the transmission" (emphasis added by Applicant). Examiner respectfully disagrees and contends that Denker does provide teachings for the above-cited limitations. Denker teaches the selected information including transport level information (Denker, column 3 lines 25-39 and lines 52-59, "port number") where the transport level information is useable by intermediate nodes between the node and another node in the packet switched network to provide value added services relative to the transmission (Denker, column 3 lines 25-50, value added services in the form of authentication by matching hash values or policing).

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Thus, Denker teachings that transport information in the form of a port number is placed in the header. Port number information is a form of transport level information as defined by Applicant (see amended claim 3). Further, Denker discloses the transport information is used as a portion of a security or authentication procedure and thus provides a value added service such as policing (see amended claim 2).

5. Applicant has further argued on Page 11 that the Examiner has failed to provide adequate motivation to combine Levesque (US Patent No. 5,825,891) and Denker stating, "the only motivation provided is a description of the problem that Denker seeks to solve." Examiner contends that at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Denker's method of encoding transport level information into packet headers with Levesque's key management system because it offers the advantage of adding additional security abilities to the communication system such as the ability to resist SYN floods (Denker, column 3 lines 6-27). The incorporation of Denker into Levesque would provide greater security and would solve Denker's proposed problem. Thus, an improvement would be made to the Levesque's system that one of ordinary skill in the art would be motivated to make.

6. Applicant has argued on page 13 that the combination of Levesque and Atkinson (RFC 2401) fail to disclose the encapsulating security payload (ESP) or authentication header (AH) protocol. Examiner respectfully disagrees. Examiner contends that Atkinson teaches the use of ESP and AH in IP security (Atkinson,

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Sections 3.1-3.2 and 4.1). Applicant's remaining arguments center on the deficiencies described above as they relate to the combination of Levesque and Atkinson. Applicant's arguments on this matter are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4, 14 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levesque et al US Patent No 5,825,891 in view of Denker US Patent No. 5,958,053. Levesque discloses a key management system for network communication. Denker discloses a communications protocol with improved security.

9. With regards to claims 1 and 11, Levesque teaches that prior to performing encryption on the payload of the packet, information is stored in the header that is not subjected to encrypting security processing (Levesque, column 3 lines 28-39). Levesque further teaches performing encrypting security processing on the payload of the packet (Levesque, column 3, lines 40-45), transmitting the packet including the header and the payload upon which encrypting security processing has been performed in the packet switched

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network thereby permitting access to the selected information normally included in the payload of the packet via the header of the packet by a node in the packet switched network (Levesque, column 3, lines 63-65). Levesque fails to teach the selected information including transport level information where the transport level information is useable by intermediate nodes between the node and another node in the packet switched network to provide value added services relative to the transmission. Denker teaches the selected information including transport level information (Denger, column 3 lines 25-39 and lines 52-59, "port number") where the transport level information is useable by intermediate nodes between the node and another node in the packet switched network to provide value added services relative to the transmission (Denger, column 3 lines 25-50, value added services in the form of authentication by matching hash values or policing). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Denker's method of encoding transport level information into packet headers with Levesque's key management system because it offers the advantage of adding additional security abilities to the communication system such as the ability to resist SYN floods (Denger, column 3 lines 6-27).

10. With regards to claims 2 and 12, Levesque as modified teaches that value added services comprise at least one of differentiated services, policing, or metering (Denger, column 3 lines 25-50, value added services in the form of authentication by matching hash values or policing).

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11. With regards to claims 3 and 13, Levesque as modified teaches the selected information including TCP info such as a port number (Denker, column 3, lines 25-59).

12. With regards to claims 4 and 14, Levesque as modified teaches selected information being stored in a security protocol header of the packet (Levesque, column 3, lines 30-32). The security protocol header is not subject to encryption (Levesque, column 4, lines 8-9).

13. With regards to claims 5-6 and 15-16, Levesque as modified teaches that the client's sequence number is modified to include selected information (Denker, column 3, lines 25-59).

14. With regards to claims 7-8 and 17-18, Levesque as modified teaches bits being designated for selected information such as TCP and port numbers and the remaining bits being designated for sequencing (column 3, lines 6-27 and Figure 2).

15. Claims 9-10 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levesque et al US Patent No 5,825,891 and Denker US Patent No. 5,958,053, as applied to claims 1 and 11 above, and in further view of Atkinson et al RFC 2401.

16. With regards to claims 9-10 and 19-20, Levesque as modified lacks a reference to encryption security processing in the form of the encapsulated security payload protocol (ESP) or authentication header protocol (AH). Atkinson teaches the use of ESP and AH in IP security (Atkinson, Sections 3.1-3.2 and

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4.1). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use AH or ESP for security of the packet data body because they provide confidentiality, data origin authentication, and anti-replay services (Atkinson, Section 3.1, Page 6).

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Nalven whose telephone number is


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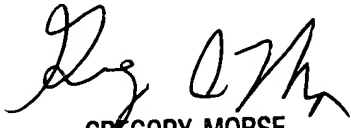
703 305 8407. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 703 308 4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Malven




GREGORY MORSE
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